MAYANK RAJ

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Education

University of Engineering and Management, Jaipur — **July 2022 - Present** (expected)
- Computer Science and Engineering | CGPA: **8.9**

Bihar School Examination Board, India — **April 2020 - February 2022**
- Class XII, *Percentage: 72%*

Bihar School Examination Board, India — **March 2019 - February 2020**
- Class X, *Percentage: 82.3%*

Skills

Languages: C, Java, Python, JavaScript, SQL
Web: React, Tailwind CSS, Next.js
AI/ML: Scikit-Learn, TensorFlow, PyTorch, Pandas, NumPy
DevOps: Git, Docker, GitHub Actions
Tools: VSCode, Postman, Linux, Ubuntu
CS Concepts: DSA, OOP, DBMS, OS, Networks

Work Experience

EduSkills | AI-ML Intern | Remote — **July 2024 - September 2024**
- Trained and optimized deep learning models using **TensorFlow** and **PyTorch**, achieving a **20%** improvement in model accuracy compared to initial benchmarks.
- Implemented object detection systems, reducing error rates by **25%** through optimization techniques and fine-tuning models.
- Managed data preprocessing and feature selection for a dataset of **10,000+** images, improving the model's efficiency and scalability.

Projects

AI-Powered Finance Management System | GitHub | Live Demo
Tech Stack: Next.js, Tailwind CSS, Supabase, Prisma, Gemini AI, Inngest, Resend, Recharts
- Built a full-stack finance management system supporting **multi-account** tracking for expenses and income.
- Integrated **Gemini AI** with OCR to extract transaction data from receipts, achieving **92% accuracy**.
- Automated monthly summary reports via **Inngest** and **Resend**, reducing manual reporting effort by **100%**.
- Implemented interactive visualizations (pie/bar charts) with **Recharts** for budget insights.

Diabetes Prediction System using ML | GitHub | Live Demo
Tech Stack: Python, Scikit-Learn, Pandas, NumPy, Flask
- Built a machine learning model using medical datasets with **720 cases** and **17 features** to predict diabetes risk.
- Applied preprocessing, feature engineering, and model tuning, achieving **92% accuracy** and **91% recall**.
- Conducted comparative analysis of Logistic Regression and Decision Tree models; optimized for performance and interpretability.

Real-Time Video Call App | GitHub | Live Demo
Tech Stack: React, WebRTC, WebSocket
- Designed a secure peer-to-peer video call platform with real-time room creation and user-based connection handling.
- Implemented **WebSocket-based** signaling and ensured **cross-device compatibility** with responsive UI.
- Enabled stable video communication for up to **50+ concurrent users**, minimizing latency by **15%**.

Achievements

- **Top 5% Performer – NPTEL DBMS Course by IIT Kharagpur**

Certifications

- Database Management System (NPTEL) — View Certificate
- Python (NPTEL) — View Certificate
- Data Structures and Algorithms (Infosys Springboard) — View Certificate